

### **REMARKS**

Claims 1-34 stand rejected in the Office Action. Claims 27, 28, 31, and 32 are amended with this reply. Upon entry of the amendment, claims 1-34 remain pending. Claims 27 and 31 have been amended to incorporate the subject matter of original claims 28 and 32 respectively. Support for the amendments to claims 28 and 32 are found in the specification as originally filed, for example on page 12 and 13, paragraph 34. Applicants respectfully request entry of the Amendments.

### **REJECTION UNDER 35 U.S.C. § 103**

Claims 1-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 1990-150456 (the Tsuji reference) and U.S. Pat. No.4,311,814 (the Ochsenbein reference), in view of U.S. Patent 4,663,429 (the Murai reference) and U.S. Patent 3,957,906 (the Buzbee reference). The Office Action states the Tsuji reference discloses polyesters falling within the scope of the instant claims, particularly at Example B of Table 3. The Murai reference is cited in the Office Action for the teaching of conventional fillers in unsaturated polyesters, while the Buzbee reference is cited for the teaching of pultrusion processes for shaping fiber reinforced unsaturated polyester articles. Applicants respectfully traverse the rejections for the reasons discussed below and request reconsideration.

For a rejection under § 103 of claims over a combination of references to be sustained, the references when combined must teach or disclose every limitation of the claims. If any limitation is missing from the combined references, there must be a motivation to modify what the combination of references discloses in order to arrive at the subject matter of the claims. In considering a modification of the teachings of the reference, it is ordinarily not obvious to

change or optimize a feature disclosed in the references, if there is no teaching that the variable to be so modified is a result effective variable.

The unsaturated polyesters of the instant claims do not fall within the scope of those disclosed in the Tsuji and Ochensenbein references. Specifically, neither the Tsuji reference nor the Ochensenbein reference discloses an unsaturated polyester wherein “the polymeric polyol is present at a level of 1-30 weight percent, based on the total weight of the hydroxol component and the carboxylic component”. As discussed below, the Tsuji reference at Example B of Table 3 discloses a polyester formula wherein the polyol is 57% by weight of the hydroxyl component and carboxylic component, while the Ochensenbein reference at Example 9 discloses an unsaturated polyester resin wherein the polymeric polyol is present at a level of 37%.

There is no teaching that varying the percent of polymeric polyol in unsaturated polyester resins will have an effect on the toughness of reinforced molded articles produced from the resins, as taught in the current specification. For this reason Applicants respectfully submit that it would not have been obvious to modify the teachings of the Tsuji reference or Ochensenbein reference to arrive at the subject matter of the current claims, which as noted above recite that the polymeric polyol is present at a level of 1 to 30 percent. Because all of the claims have been amended to recite the 1 to 30 percent limitations, this argument of non-obviousness applies to all of the current claims 1 through 34.

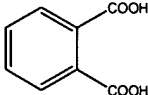
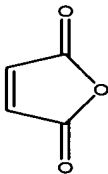
The secondary references do not make up for the deficiency of the Tsuji reference and the Ochensenbein reference as discussed above. As noted before, the Murai reference is cited for teaching of fillers while Buzbee is cited for pultrusion methods. For this reason, Applicant’s respectfully submit that combining the disclosures of the secondary references with the primary references does not lead to the subject matter of the current claims.

Other of claims 1 through 34 as amended contain subject matter not at all disclosed in any of the cited references. For example, claims 13 through 17 and claim 26 recite the presence in the molding compound of up to 7% by weight of a second fiber of average length less than or equal to 4mm. For this further reason, Applicants respectfully submit claims 13 through 17 and claim 26 are patentable over the cited references.

For the reasons discussed, Applicants respectfully request that the rejection of the claims be withdrawn.

#### Disclosure of the Tsuji Reference

At Example B of Table 3, the reference describes an unsaturated polyester made of the following components:

Components.	# Moles		Molecular Weight	Weight Contribution	Weight % of Total
EG HOCH <sub>2</sub> CH <sub>2</sub> OH	1	x	60	60	
PG HO-CH-CH <sub>2</sub> -OH   CH <sub>3</sub>	1	x	74	74	
PPG 400	3	x	400	1200/2096	57%
OPA 	4	x	166	644	
MA 	1	x	98	98	
Total Weight				2096	

The Tsuji reference thus discloses an unsaturated polyester resin wherein the polymeric polyol (here polypropylene glycol 400) is present at a level of 57 weight percent.

Disclosure of the Ochsenbein Reference

Example 9 of the reference discloses a unsaturated polyester that is a copolymer of maleic anhydride, propylene glycol, and polypropylene glycol 400. The composition is given in the following Table.

Components No.	No. Moles		Molecular Weight	Weight Contribution	Weight % of Total
Maleic anhydride	10mol	x	98	980	
Propylene glycol	8.6 mol	x	74	636.4	
PPG 400	2.4 mol	x	400	960/2576.4	37%
Total weight				2576.4	

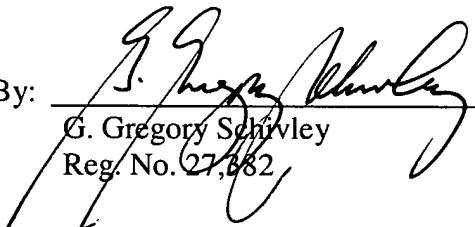
On the basis of the above analysis, the Ochsenbein reference discloses an unsaturated polyester resin having 37% by weight of the polymeric polyol.

CONCLUSION

For the reasons discussed above, Applicants believe that claims 1 through 34 as amended are in a state of allowability and respectfully request an early notice of such allowance. The Examiner is invited to telephone the undersigned if that would be helpful in resolving any issues.

Respectfully submitted,

Dated: Feb 12, 2004

By:   
G. Gregory Schivley  
Reg. No. 27,882

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600

GGs/MAF/cg